TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective May 1, 2009
WIN-1082 Revised July 1, 2011

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **August 2012**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Series 310 Vinyl Single Hung Windows, Individual and Mulled, New Construction and Replacement Windows, Non-impact Resistant, manufactured by:

Maritech Windows
1813 Kelly Blvd.
Carrollton, Texas 75006
Telephone: (469) 568-5636
www.maritechwindows.com

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The Series 310 window is a vinyl single hung window. The vinyl single hung windows evaluated in this report are individual and mulled, non-impact resistant windows. This product evaluation report is for vinyl single hung windows based on the following tested construction:

General Description:

System	Description	Label Rating
1	Series 310 Vinyl Single Hung Window; Individual; (O/X)	R-PG50 40 x 72 - H
2	Series 310 Vinyl Single Hung Window; Individual; (O/X)	LC-PG50 48 x 84 - H
3	Series 310 Vinyl Single Hung Window; Twin; (O/X.O/X)	R-PG45 88 x 72 - H

Product Dimensions:

System	Overall Size	Sash Size	Fixed Daylight Opening Size
1	40" x 72"	37 1/4" x 35 3/16"	35 9/16" x 32 9/16"
2	48" x 84"	46" x 29 13/16"	45 3/8" x 51"
3	88" x 72"	Two: 41 13/16" x 29 7/8"	Two: 41 1/8" x 39"

Glazing Description:

System	Glass Construction [1]	Glazing Method [2]
1	IG-1	GM-1
2	IG-2	GM-2
3	IG-2	GM-2

Note: [1] See the "Glass Construction Key" for the glazing construction.
[2] See the "Glazing Method Key" for the glazing method description.

Glass Construction Key:

IG-1: The fixed sash and the operable sash contain sealed insulating glass units. The sealed insulating glass units are comprised of two single strength ($\frac{3}{32}$") annealed glass lites separated by a composite matrix spacer. The glass type and thickness in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

IG-2: The fixed sash and the operable sash contain sealed insulating glass units. The sealed insulating glass units are comprised of two double strength ($\frac{1}{8}$") annealed glass lites separated by a butyl spacer with a stainless steel substrate. The glass type and thickness in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The insulating glass units are exterior glazed against a backbedding material. A vinyl (PVC) snap-in glazing bead secures the insulating glass units in place.

GM-2: The insulating glass units are set against a bed of hot melt glazing compound. A vinyl (PVC) snap-in glazing bead secures the insulating glass units in place.

Frame Construction: The frame members are manufactured from extruded vinyl (PVC). The frame corners are mitered and welded construction. The fixed meeting rail is secured to the frame side jambs with screws.

Mullion (System 3): The integral mullion is secured to the head and to the sill with fasteners. The fixed meeting rail is secured to integral mullion with screws.

Sill Extender: A rigid vinyl sill extender is secured to the interior leg of the frame sill with silicone sealant.

Sash Construction: The sash members are manufactured from extruded vinyl (PVC). The sash corners are mitered and welded construction.

Reinforcement:

Systems 1 and 2: Custom shaped extruded aluminum reinforcement is utilized in the lock rail and in the fixed meeting rail. The reinforcement extends the full length of the members.

System 3: Custom shaped extruded aluminum reinforcement is utilized in each lock rail, each fixed meeting rail, and in the integral mullion. The reinforcement extends the full length of the members.

Hardware (per window):

- Sweep lock; Two (2) required; Located on the active sash rail.
- Keepers; Two (2) required; Located in the fixed meeting rail, adjacent to the locks.
- Block and tackle balance; Two (2) required; Located in each side jamb.

Hardware (per window) - continued:

- Balance clips; Two (2) required; Located in each side jamb.

Product Identification:

Systems 1 and 2: A certification program label (NAMI) will be affixed to the window. The certification program label includes the manufacturer's code name (**MTW**); product name: **310 Vinyl Single Hung**; performance characteristics; the approved inspection agency (NAMI); and the applicable standard: AAMA/WDMA/CSA 101/I.S.2/A440-08.

System 3: A certification program label (NAMI) will be affixed to the window. The certification program label includes the manufacturer's code name (**MTW**); product name: **310 Twin Oriel Single Hung**; performance characteristics; the approved inspection agency (NAMI); and the applicable standard: AAMA/WDMA/CSA 101/I.S.2/A440-08.

LIMITATIONS

Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	40	72	± 50
2	48	84	± 50
3	88	72	± 45

Impact Resistance: These window assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These window assemblies will need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

Acceptance of Smaller Assemblies: Window assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: The window assembly shall be installed in accordance with the manufacturer's installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation:

New Construction (Systems 1 thru 3): The wood wall framing members shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be secured to the wall framing using the nailing fin of the window with either minimum No. 8 screws or minimum 2 3/8" x 0.120" smooth shank nails. The fasteners shall be located approximately 2 inch from each corner and approximately 4 inches on center along the perimeter of the window. The fasteners shall be long enough to penetrate a minimum of 1 1/2 inches into the wall framing.

Replacement Construction:

System 1: The wood wall framing members shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be secured to the wall framing using the frame of the window with minimum No. 10 x 2 1/2" screws. Along each side jamb, a minimum of five (5) fasteners are required. One fastener shall be located approximately 4 inches from each end and the remaining fasteners are located in between, evenly spaced. Along the head, a minimum of three (3) fasteners are required. One fastener is located approximately 4 inches from each end and one fastener located at the mid span. The fasteners shall be long enough to penetrate 1 1/2 inches into the wall framing.

System 2: The wood wall framing members shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be secured to the wall framing using the frame of the window with minimum No. 10 x 2 ½" screws. Along each side jamb, a minimum of seven (7) fasteners are required. One fastener shall be located approximately 4 inches from each end and the remaining fasteners are located in between, evenly spaced. Along the head, a minimum of four (4) fasteners are required. One fastener is located approximately 4 inches from each end and the remaining fasteners are located in between, evenly spaced. The fasteners shall be long enough to penetrate 1 ½ inches into the wall framing.

System 3: The wood wall framing members shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be secured to the wall framing using the frame of the window with minimum No. 10 x 2 ½" screws. Along each side jamb, a minimum of ten (10) fasteners are required. One fastener shall be located approximately 4 inches from each end and the remaining fasteners are located in between, evenly spaced. Along the head of each window, a minimum of four (4) fasteners are required for a total of eight (8). One fastener shall be located approximately 4 inches from each end and the remaining fasteners are located in between, evenly spaced. The fasteners shall be long enough to penetrate 1 ½ inches into the wall framing.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.